

## **REMARKS**

### **I. Introduction**

With the cancellation without prejudice of claim 9, claims 1, 4 to 8 and 22 are pending in the present application. In view of the foregoing amendments and the following remarks, it is respectfully submitted that the presently pending claims are allowable, and reconsideration is respectfully requested.

### **II. Rejection of Claims 1, 4 to 9 and 22 Under 35 U.S.C. § 103(a)**

Claims 1, 4 to 9 and 22 were rejected under 35 U.S.C. § 103(a) as unpatentable over a combination of U.S. Patent No. 6,062,461 (“Sparks et al.”) and either U.S. Patent No. 6,761,420 (“Maluf et al.”) or U.S. Patent No. 6,686, 642 (“Regan et al.”), as well as Applicants’ alleged discussion of the prior art. It is respectfully submitted that the combination of Sparks et al. and either Maluf et al. or Regan et al., as well as of Applicants’ alleged discussion of the prior art, does not render unpatentable the present claims for at least the following reasons.

Claim 1 relates to a microstructured component having a layered construction, including: a carrier including at least one glass layer; a component structure including a first silicon layer directly bonded to the glass layer; and a cap arranged over the component structure and bonded directly to the glass layer, wherein the component structure includes a first silicon wafer and is bonded to the glass layer by anodic bonding at a temperature of approximately 400° C, and wherein the first silicon layer has a thickness greater than 50  $\mu\text{m}$ .

Although Applicants may not agree with the merits of the rejection, to facilitate matters, claim 1 has been amended, *inter alia*, to incorporate the features of claim 9, and claim 9 has been canceled without prejudice. Claim 1 as amended recites, in relevant part, that *the component structure includes movable structure elements, the cap is configured as a mechanical stop for the movable structure elements, the component structure is enclosed in a vacuum between the glass layer and the cap, and a pressure of the vacuum is approximately 100  $\mu\text{bar}$  to 1 mbar*. Support for this amendment may be found, for example, on page 3, lines 20 to 27, page 3, line 38 to page 4, line 5 and page 6, lines 27 to 28 of the Specification.

Neither Sparks et al., nor Maluf et al., nor Regan et al., nor Applicants’ alleged discussion of the prior art disclose, or even suggest, a microstructured component having a cap arranged over a component structure, where the cap is configured as a mechanical stop for movable structure elements. Sparks et al. describe a semiconductor device including a

device wafer (10) with a micromachined structure (14), and a capping wafer (12) that is soldered to the device wafer (10) and encloses the micromachined structure (14). However, Sparks et al. make no mention whatsoever of the capping wafer (12) being used as a mechanical stop for any movable structure elements in the micromachined structure (14). Neither Maluf et al., nor Regan et al., nor Applicants' alleged discussion of the prior art cure the deficiencies of Sparks et al. with respect to the above-mentioned feature.

Furthermore, neither Sparks et al., nor Maluf et al., nor Regan et al., nor Applicants' alleged discussion of the prior art disclose, or even suggest, that a component structure of a microstructured component is enclosed in a vacuum between a glass layer and a cap, where a pressure of the vacuum is approximately 100  $\mu$ bar to 1 mbar. Sparks et al. do indicate that a vacuum is formed in a recess (16) in which micromachined structure (14) is situated, but do not mention a pressure of the vacuum. In addition, Regan et al. describe, in column 6, lines 30 to 51, a micromachined system including a substrate (10) and a glass substrate (58), where these two substrates (10, 58) are bonded together via seal (52) to enclose an evacuated space (82). However, Regan et al. do not mention a pressure in the evacuated space (82). Moreover, neither Maluf et al., nor Applicants' alleged discussion of the prior art cure the deficiencies of Sparks et al. and Regan et al. with respect to the above-mentioned feature. The above-mentioned vacuum pressure is obtained by producing an opening in a cap, via which sensor structures may be contacted from above, and then refilling the opening with an electrically insulating material, such as silicon oxide or silicon nitride, using a chemical vapor deposition process.

Accordingly, it is respectfully submitted that the combination of Sparks et al. and either Maluf et al. or Regan et al., as well as of Applicants' alleged discussion of the prior art, does not render claim 1 unpatentable for at least the above reasons.

As mentioned above, claim 9 has been canceled without prejudice, thereby rendering moot the rejection with respect to this claim.

As for claims 4 to 8 and 22, which ultimately depend from claim 1 and therefore include all of the features of claim 1, it is respectfully submitted that the combination of Sparks et al. and either Maluf et al. or Regan et al., as well as of Applicants' alleged discussion of the prior art, does not render these dependent claims unpatentable for at least the reasons set forth above.

In view of all of the foregoing, withdrawal of this rejection is respectfully requested.

### **III. Conclusion**

In view of the foregoing, it is respectfully submitted that the presently pending claims are allowable. It is therefore respectfully requested that the rejections be withdrawn, since they have been obviated. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is respectfully requested.

Respectfully submitted,

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